Form PTO 1449

(Rev. 2-32)

U.S. Department of Commerce
Patent and Trademark Office

Information Disclosure Statement by Applicant

(Use several sheets if necessary)

Atty. Docket No.

LMPY-12310

99/838,715

Applicant:
Igor Bragin, et al.

Filed: April 18, 2001 Group: 2881

## **U.S. Patent Documents**

Init.	Document No.	Date	Name	Class	Subclass	Filing Date
TN	3,858,056	12/31/74	Melamed, et al.	307	88.3	01/22/74
TN	3,962,576	06/08/76	Kuhl, et al.	250	201	01/17/75
TN	4,240,044	12/16/80	Fahlen, et al.	331	94.5 PE	07/16/79
1	4,380,079	04/12/83	Cohn, et al.	372	87	09/12/80
	4,393,505	07/12/83	Fahlen	372	57	11/03/81
	4,399,540	08/16/83	Bücher	372	20	09/22/80
	4,611,270	09/09/86	Klauminzer, et al.	364	183	09/16/83
	4,616,908	10/14/86	King	350	576	07/19/84
	4,686,682	08/11/87	Haruta, et al.	372	87	10/01/85
	4,691,322	09/01/87	Nozue, et al.	372	82	01/22/86
	4,718,072	01/05/88	Marchetti, et al.	372	86	05/15/87
	4,719,637	01/12/88	Cavioli, et al.	372	59	03/22/86
	4,763,093	08/09/88	Cirkel, et al.	336	58	08/21/86
	4,797,888	01/10/89	Klopotek	372	38.05	06/23/87
	4,928,020	05/22/90	Birx, et al.	307	106	04/05/88
	4,829,536	05/09/89	Kajiyama, et al.	372	57	06/09/87
-	4,856,018	08/08/89	Nozue, et al.	372	99	01/20/87
	4,860,300	08/22/89	Bäumler, et al.	372	57	01/27/89
	4,819,818	01/02/90	Levatter	372	57	03/13/89
	4,905,243	02/27/90	Lokai, et al.	372	32	12/22/88
	4,926,428	05/15/90	Kajiyama, et al.	372	20	08/31/87
	4,953,174	08/28/90	Eldridge, et al.	372	87	10/23/89
	4,975,919	12/04/90	Amada, et al.	372	33	03/18/88
	4,977,563	12/11/90	Nakatani, et al.	372	32	09/22/88
	4,977,573	12/11/90	Bittenson, et al.	372	81	03/09/89
	4,983,859	01/08/91	Nakajima, et al.	307	419	08/22/89
	5,025,445	06/18/91	Anderson, et al.	372	20	11/22/89
	5,090,020	02/18/92	Bedwell	372	59	10/31/90
	5,090,021	02/18/92	Nakatani, et al.	372	86	05/15/90
	5,093,832	03/03/92	Bethune, et al.	372	21	03/14/91
	5,095,492	03/10/92	Sandstrom	372	102	07/17/90
Examiner	Tuan Ng	ye		Date Cons	dered	19/02

Examiner: Initial if citation considered, whether or not citation is in conference with MPEP 609; Draw line through citation if not conformance and not considered. Include a copy of this form with the next communication to applicant.

JUN 1 7 2002 3

(Rev. 2-32)
U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No. LMPY-12310;

Serial No.: 09/838,715

Information Disclosure Statement by Applicant

Applicant: Igor Bragin, et al.

(Use several sheets if necessary)

Filed: April 18, 2001 Group: 2881

## **U.S. Patent Documents**

nit.	Document No.	Date	Name	Class	Subclass	Filing Date
TN	5,142,166	08/25/92	Birx	307	419	10/16/91
TN	5,142,543	08/25/92	Wakabayashi, et al.	372	32	01/27/89
,	5,150,370	09/22/92	Furuya, et al.	372	106	12/12/90
	5,177,754	01/05/93	Ball, et al.	372	38	03/15/89
	5,181,217	01/19/93	Sato, et al.	372	38	07/09/91
T	5,221,823	06/22/93	Usui	219	121.78	01/17/92
	5,226,050	07/06/93	Burghardt	372	20	01/25/91
	5,247,531	09/21/93	Müller-Horsche	372	38	03/12/92
	5,247,534	09/21/93	Müller-Horsche, et al.	372	58	03/27/92
	5,247,535	09/21/93	Müller-Horsche, et al.	372	86	03/12/92
	5,305,338	04/19/94	Wakata, et al.	372	38	09/10/91
	5,309,462	05/03/94	Taylor, et al.	372	38	02/17/93
	5,313,481	05/17/94	Cook, et al.	372	37	09/29/93
	5,315,611	05/24/94	Ball, et al.	372	56	06/12/92
	5,319,665	06/07/94	Birx	372	69	11/06/92
	5,337,330	08/09/94	Larson	372	86	10/09/92
	5,365,366	11/15/94	Kafka, et al.	359	330	04/29/93
	5,396,514	03/07/95	Voss	372	57	03/01/93
	5,404,366	04/04/95	Wakabayashi, et al.	372	29	02/14/94
	5,427,531	06/27/95	Kramer	434	302	10/20/92
	5,448,580	09/05/95	Birx, et al.	372	38	07/05/94
	5,450,207	09/12/95	Fomenkov, et al.	356	416	07/16/93
	5,463,650	10/31/95	Ito, et al.	372	57	12/28/94
	5,535,233	07/09/96	Mizoguchi, et al.	372	87	10/04/93
	5,557,629	09/17/96	Mizoguchi, et al.	372	87	08/28/92
	5,559,584	09/24/96	Miyaji, et al.	355	73	01/30/95
	5,559,815	09/24/96	Berger, et al.	372	25	05/09/95
	5,559,816	09/24/96	Basting, et al.	372	57	05/30/95
	5,586,134	12/17/96	Das, et al.	372	38	10/12/94
	5,596,596	01/21/97	Wakabayashi, et al.	372	102	12/15/95
	5,638,388	06/10/97	Nighan, Jr., et al.	372	22	05/19/95
	5,659,419	08/19/97	Lokai, et al.	359	330	07/11/95
aminer	Tuan	Mary		Date Cons	idered //	/19/0

Examiner: Initial if citation considered, whether or not citation is in conference with MPEP 609; Draw line through citation if not conformance and not considered. Include a copy of this form with the next communication to applicant.

_	_		
Page	3	of _	

Form PTO 144	PRADEM	Atty. Docket No.	Serial No.:	
(Rev. 2-32)	U.S. Department of Commerce	LMPY-12310	09/838,715	
	Patent and Trademark Office			
Inf	ormation Disclosure Statement by Applicant	Applicant:		
		Igor Bragin, et al.		
	(Use several sheets if necessary)	Filed: April 18, 2001	Group: 2881	

## **U.S. Patent Documents**

Init.	Document No.	Date	Name	Class	Subclass	Filing Date
TN	5,663,973	09/02/97	Stamm, et al.	372	20	06/10/96
TN	5,684,822	11/04/97	Partlo	372	95	11/17/94
	5,710,787	01/20/98	Amada, et al.	372	25	06/05/98
	5,729,562	03/17/98	Birx, et al.	372	38	10/31/96
	5,729,565	03/17/98	Meller, et al.	372	87	11/07/96
	5,748,346	05/05/98	David, et al.	359	15	05/12/97
	5,754,579	05/19/98	Mizoguchi, et al.	372	58	05/26/95
	5,761,236	06/02/98	Kleinschmidt, et al.	372	100	07/18/96
	5,763,855	06/09/98	Shioji	219	121.84	06/02/95
	5,771,258	06/23/98	Morton, et al.	372	57	05/16/97
	5,802,094	09/01/98	Wakabayashi, et al.	372	57	10/10/96
	5,811,753	09/22/98	Weick, et al.	219	121.78	06/19/96
	5,818,865	10/06/98	Watson, et al.	372	86	05/16/97
	5,835,520	11/10/98	Das, et al.	372	57	04/23/97
	5,847,861	12/08/98	Kafka, et al.	359	330	05/06/94
	5,854,802	12/29/98	Jin, et al.	372	′ 22	06/03/97
	5,852,627	12/22/98	Ershov	372	108	09/10/97
	5,856,991	01/05/99	Ershov	372	57	06/04/97
	5,898,718	04/27/99	Mohatt, et al.	372	22	05/19/97
	5,898,725	04/27/99	Fomenkov, et al.	372	102	01/21/97
	5,901,163	05/04/99	Ershov	372	20	12/08/97
	5,914,974	06/22/99	Partlo, et al.	372	38	02/21/97
	5,917,849	06/29/99	Ershov	372	102	06/29/99
	5,923,693	07/13/99	Ohmi, et al.	372	57	02/28/97
	5,936,988	08/10/99	Partlo, et al.	372	38	07/18/98
	5,940,421	08/17/99	Partlo, et al.	372	38	12/15/97
	5,946,337	08/31/99	Govorvok, et al.	372	92	04/29/98
	5,949,806	09/07/99	Ness, et al.	372	38	06/19/98
	5,970,082	10/19/99	Ershov	372	102	07/01/97
	5,978,391	11/02/99	Das, et al.	372	20	07/18/97
1	5,978,394	11/02/99	Newman, et al.	372	32	10/02/98

Examiner: Initial if citation considered, whether or not citation is in conference with MPEP 609; Draw line through citation if not conformance and not considered. Include a copy of this form with the next communication to applicant.

JUN 1 7 2002 33

Patent and Trademark Office

Form PTO 1449 (Rev. 2-32) U.S. Department of Commerce

Atty. Docket No. LMPY-12310

 $\mathcal{M}_{\mathcal{F}} = \mathbb{I}_{\mathcal{F}}$ 

Applicant:

Serial No.: 09/838,715

Information Disclosure Statement by Applicant

Igor Bragin, et al.

(Use several sheets if necessary)

Filed: April 18, 2001 Group: 2881

## **U.S. Patent Documents**

Init.	Document No.	Date	Name	Class	Subclass	Filing Date
TN	5,978,405	11/02/99	Juhasz, et al.	372	57	03/06/98
TN	5,978,406	11/02/99	Rokni, et al.	372	58	01/30/98
	5,978,409	11/02/99	Das, et al.	372	100	09/28/98
	5,982,795	11/09/99	Rothweil, et al.	372	38	12/22/97
	5,982,800	11/09/99	Ishihara, et al.	372	57	10/10/97
	5,991,324	11/23/99	Knowles, et al.	372	57	03/11/98
	5,999,318	12/07/99	Morton, et al.	359	572	03/09/99
	6,002,697	12/14/99	Govorkov, et al.	372	34	08/24/98
	6,005,880	12/21/99	Basting, et al.	372	38	03/21/97
	6,014,206	01/11/00	Basting, et al.	356	138	09/28/98
	6,014,398	01/11/00	Hofmann, et al.	372	60	05/20/98
	6,016,325	01/18/00	Ness, et al.	372	38	04/27/98
	6,018,537	01/25/00	Hofmann, et al.	372	25	03/19/99
	6,020,723	02/01/00	Desor, et al.	320	166	04/15/97
	6,061,382	05/09/00	Govorkov, et al.	372	101	05/04/98
	6,028,872	02/22/00	Partlo, et al.	372	38	12/15/98
	6,028,880	02/22/00	Carlesi, et al.	372	58	07/02/98
	6,081,542	06/27/00	Scaggs	372	70	06/12/98
	6,084,897	07/04/00	Wakabayashi, et al.	372	38	09/02/96
	6,097,311	05/23/00	Morton, et al.	372	57	09/04/98
	6,128,323	10/03/00	Myers, et al.	372	38	09/18/98
	6,151,346	11/21/00	Partlo, et al.	372	38	08/09/99
	6,154,470	11/28/00	Basting, et al.	372	19	05/24/99
	6,157,662	12/05/00	Scaggs	372	60	05/24/99
	6,160,831	12/12/00	Kleinschmidt, et al.	372	57	03/17/99
	6,160,832	12/12/00	Kleinschmidt, et al.	372	57	10/12/99
	6,163,559	12/19/00	Watson	372	102	06/22/98
	6,198,761	03/06/01	von Bergmann, et al.	372	86	09/03/99
	6,212,211	04/03/01	Azzola, et al.	372	33	10/09/98
	6,212,214	04/03/01	Vogler, et al.	372	59	08/23/99
	6,219,368	04/17/01	Govorkov	372	59	06/30/99
Examiner	- luan	May		Date Cons	idered 1	1/19/62

Examiner: Initial if citation considered, whether of not citation is in conference with MPEP 609; Draw line through citation if not conformance and not considered. Include a copy of this form with the next communication to applicant.

Form PTO 1449 Atty. Docket No. Serial No.: LMPY-12310 09/838,715 (Rev. 2-32) U.S. Department of Commerce Patent and Trademark Office Information Disclosure Statement by Applicant Applicant: Igor Bragin, et al. (Use several sheets if necessary) Filed: April 18, 2001 Group: 2881 **U.S. Patent Documents** Document No. Subclass Init. Date Name Class Filing Date 6,226,307 05/01/01 Desor, et al. 372 37 11/02/99 6,243,405 06/05/01 Borneis, et al. 372 57 01/18/00 6,243,406 06/05/01 Heist, et al. 372 59 10/14/99 6,269,110 07/31/00 Leinhos, et al. 372 57 10/05/98 6,282,221 08/28/01 Ohmi, et al. 372 57 07/11/97 6,298,080 10/02/01 Heist, et al. 372 99 12/01/99 6,324,196 11/27/01 Desor 372 30 01/12/00 **Foreign Documents** Translation Init. Document No. Date Country Class Subclass Yes No 7N 61-91982 10/11/84 Japan H01S 3/03  $\mathbf{X}$ 61-116889 10/13/84 Japan H<sub>01</sub>S 3/4 X DE 38 42 492 A1 06/21/90 Germany X H<sub>01</sub>S 3/097 JP 3009582 A 01/17/91 Japan H<sub>01</sub>S 003/038 X EP 0 532 751 A1 02/08/91 **EPO** X H01S 3/038 EP 0 532 751 B1 02/08/91 **EPO** H<sub>01</sub>S X 3/038 DE 44 01 892 A1 01/24/94 Germany H<sub>01</sub>S 3/038 X WO 96/25778 08/22/96 **PCT** H<sub>01</sub>S 3/00 X GB 2 267 790 A 12/15/93 United Kingdom H<sub>0</sub>3K 3/57 DE 298 22 090 U1 03/25/99 Germany H01S 3/08 X EP 1 075 059 A1 02/07/01 **EPO** H<sub>01</sub>S 3/0971 EP 1 085 623 A2 03/21/01 **EPO** H01S 3/0971 EP 1 107 401 A1 06/13/01 **EPO** H<sub>01</sub>S 3/038 Other Documents (Including Author, Title, Date, Pertinent Pages, etc.) TN F.W. Grover, Inductance Calculations, "Parallel Elements of Equal Length," New York, 1945, pp. 31-44. Melville, W.S., "The Use of Saturable Reactors as Discharge Devices for Pulse Generators," The Proceedings of The Institution of Electrical Engineers Part III, Vol. 98, 1951, pp. 185-206. T.Y. Chang, "Improved Uniform-Field Electrode Profiles for TEA Laser and High Voltage Applications," The Review of Scientific Instruments, April 1973, Vol. 4., No. 4., pp. 405-407. Birx, et al., "Regulation and Drive System for High Rep-Rate Magnetic Pulse Compressors," Article prepared for submission to the 15th Power Modulator Symposium, Baltimore, Maryland, June 14-16, 1982, pp. 1-17. Examiner Date Considered Many nan Examiner: Initial if citation considered, whether or not citation is in conference with MPEP 609; Draw line through citation if not conformance and not considered. Include Acopy of this form with the next communication to applicant.

JUN 1 7 2002

Page	6	of	7	<u>'</u>

•	JUN 1 7 2002 (L)		Page6 of _		
Form PTO 1	449	Atty. Docket No.	Serial No.:		
(Rev. 2-32)	U.S. Department of Commerce	LMPY-12310	09/838,715		
	Patent and Trademark Office				
	nformation Disclosure Statement by Applicant	Applicant:			
		Igor Bragin, et al.			
	(Use several sheets if necessary)	Filed: April 18, 2001	Group: 2881		
	Other Documents (Including Author, 7				
TN	Smilanski, I., et al., "Electrical Excitation of an Xed	Cl Laser Using Magnetic Puls	e Compression," App		
	<u>Lett.</u> , Vol. 40, No. 7, April 1, 1982, pp. 547-548.				
TU	E.A. Stappaerts, "A Novel Analytical Design Meth	_	ode Profiles," <u>Appl. P</u> l		
/ N	Lett., June 15, 1982, Vol. 40., No. 12., p. 1018-101				
	Questek, "Magnetic Pulse Compression for Excimer Lasers," <u>Technical Notes No. 2</u> , May 1983.				
	Soldatov, et al., "Copper Vapor Laser with Stabilized Output Parameters," Sov. J. Quantum Electron., Vol.				
	13, No. 5, May 1983, pp. 612-616.				
	Ernst G.J. et al., "Compact Uniform Field Electrode Profile," Optics Communications, Vol. 47, No. 1, Aug				
	1, 1983, pp. 47-51.				
	G.J. Ernst, "Uniform-Field Electrodes with Minimum Width," Optics Communications, Vol. 49, No. 4, M				
	15, 1984, pp. 275-277  D. Bosting et al. "Thurstone with Magnetic Switches The Verse Belieble Engine Level" I al. 1				
	D. Basting, et al., "Thyratrons with Magnetic Switches: The Key to Reliable Excimer Lasers," <u>Laser and</u>				
	Optoelektronik, No. 2, 1984, pp. 128-131.				
	Endoh, et al., "An Electronically Triggered 200 kV Rail-gap Switch for Wide Aperture Excimer Lasers,"				
	Journal of Applied Physics, Vol. 55, No. 5, March 1, 1984, pp. 1322-1331.				
	Marchetti, et al., "A New Type of Corona-Discharge Photoionization Source for Gas Lasers," <u>J. Appl. Phy</u> Vol. 56, No.11, December 1984, pp. 3163-3168.				
		vitching Exciter for Pumping	Excimer Lasers " Rev		
	T. Shimada, et al., "An All Solid-state Magnetic Switching Exciter for Pumping Excimer Lasers," Rev. Sci Instrum. Vol. 56, No. 11, 1985				
	T. Shimada et al., "Semiconductor Switched Magnetic Modulator for Rep-Rate Lasers," IEEE Pulse				
	Conference, Crystal City, Virginia, June 10-12, 1985, 4 pages in length				
	Kobayashi, O., et al., "High Power Repetitive Excimer Lasers Pumped by an All Solid State Magnetic				
	Exciter," SPIE, Vol. 622, 1986, pp. 111-117.				
	Baker, H.J., et al., "Magnetic Switching Circuits for Variable High Voltage Pulse Delays and Gas-Laser				
	Synchronisation, The Institute of Physics, 1986, pp. 149-152.				
	Bakert, H.J., et al., "An Efficient Laser Pulser Using Ferrite Magnetic Switches," IOP Publishing, 1988, pp				
	218-224.				
	Keet, A.L., et al., "High Voltage Solid State Pulser for High Repetition-Rate Gas Lasers," EPE Aochen, 19				
	4 pages.				
	I. Smilanski, "Reducing Thyratron Losses in CVL I	Modulator," Conference Reco	rd, 19 <sup>th</sup> Power Modula		
	Conference., 1990, San Diego, CA, pp. 287-289.				
	Greenwood, et al., "An Optimisation Strategy for E	fficient Pulse Compression,"	IEEE, September 1990		
	187-191.	*			
	Dr. D. Basting, "Industrial Excimer Lasers," 2nd Ed	<del></del>	<u> </u>		
Examiner	Tuan Nary	Date Consid	dered // / to		

	JUN 1 7 2002		Page7 of			
Form PTO	1449	Atty. Docket No.	Serial No.:			
(Rev. 2-32)	G TRANEM!	LMPY-12310	09/838,715			
,	Patent and Trademark Office					
	Information Disclosure Statement by Applicant	Applicant:				
		Igor Bragin, et al.				
	(Use several sheets if necessary)	Filed: April 18, 2001	Group: 2881			
	Other Documents (Including Author	or, Title, Date, Pertinent Pages,	etc.)			
TN	Patent Abstract of Japan: Publication No.: JP (	03-105989, Publication date: May	5, 1991, Application 1			
	01241739, September 20, 1989, 1 page.	100004 A 1' d' N 0000				
TN	Patent Abstract of Japan: Publication No.: JP 0	4-109684, Application No.: 02226	623, October 4, 1992			
1 10	page.	s for Multileilouett Avenue Dave				
]	von Bergmann, et al., "Thyristor-driven Pulsers for Multikilowatt Average Power Lasers," <u>IEE Proceeding</u>					
1	B, Vol. 139, No. 2, March 1992, pp. 123-130.  Druckmann, H.M., et al., "A New Algorithm for the Design of Magnetic Pulse Compressors," IEEE, July					
	1992, 99. 213-216.	of the Design of Magnetic Pulse C	ompressors, <u>iEEE</u> , J			
$\dashv$	Handbook of Transformer Design and Applica	tions by William M. Flanagan 2nd	Fdition 1993: Chan			
1	Design Procedures, pp. 10.1-10.28.	•				
		Ionization of a Long Optical Pulse Magnetic-Spiker Systainer XeCl Laser," Rev				
	<u>Instrum.</u> Vol. 65, No. 12, December 1994, pp.					
	Taylor, R.S., et al., "Transmission Properties o		Rare-Gas halide Lase			
	Mixes," IEEE Journal of Quantum Electronics,	, Vol. 31, No. 12, December 1995,	pp. 2195-2207.			
	T. Efthimiopoulos, et al., "An Auto-pre-pulse a					
	E. Scientific Instruments, February 6, 1995, No.	o. 2, pp. 167-169.				
	V.M. Borisov et al., "Effects Limiting the Aver	rage Power of Compact Pulse-peri	odic KrF Lasers," Qu			
	Electronics, 1995, Vol. 25., No. 5., pp. 421-425	5.				
1	M. Jung, et al., "PFN's Switched with SCR's a					
	International Power Modulator Symposium, 19					
	Tatsumi Goto, et al., "Design Concept and Peri		•			
	Switching for High Power Excimer Laser," Re					
	Enami et al., "High Spectral Pourity and High I	-				
	Ionization Discharge," Proceedings of SPIE, V					
1	Wakabayashi, et al., "Billion Level Durable Ar Annual International Symposium on Microlithe					
	Annual International Symposium on Micronine	<u>ograpny, Santa Clara, CA,</u> May 14	-19, 1999			
			<u></u>			
			·			
Fran	The state of the s					
Examiner	Luan Hayye	Date Consid	$\frac{\text{dered}}{\sqrt{19}}$			